CLAIMS

What is claimed is:

1    1.      A method of maintaining communications in a bus bridge interconnect

2    comprising a plurality of buses linked by at least one bus bridge, the method

3    comprising:    receiving a change indication signal from a talker node;

4        performing an address resolution protocol in response to the change

5    indication signal to find an updated node identification address("nodeID") for a

6    listener node using a extended unique identifier ("EUI") of the listener node; and

7        storing the updated listener nodeID with the listener node EUI.


1    2.      The method of claim 1 further comprising:

2        transmitting a signal including the updated nodeID for the listener to the

3    listener.


1    3.      The method of claim 1 wherein performing an address resolution protocol

2    comprises examining a bus bridge to see what buses exist, searching each bus until a

3    matching EUI is found, and identifying the nodeID associated with the matching

4    EUI.


1    4.      The method of claim 1 wherein the change indication signal is a net change

2    signal.


1    5.      The method of claim 1 wherein the buses are similar to a version of the IEEE

2    standard 1394 bus.


1    6.      The method of claim 1 wherein the updated listener nodeID and listener node

2    EUI are stored in a bus bridge portal.

1    7.    A method of maintaining communications in a bus bridge interconnect

2    comprising a plurality of buses linked by at least one bus bridge, the method

3    comprising:

4            receiving a signal from a talker node at a controller node;

5            transmitting the signal from the controller node to a listener node with an

6    updated controller nodeID as the source nodeID and the controller node EUI as the

7    source EUI;

8            searching the listener node memory for the controller node EUI;

9            comparing, if the received controller node EUI matches a stored controller

10   node EUI, the received controller nodeID to a stored controller nodeID associated

11   with the stored controller node EUI; and

12           replacing the stored controller nodeID with the received controller nodeID in

13   the listener node memory if the received controller nodeID does not match the stored

14   controller nodeID.


1    8.    The method of claim 7 further comprising:

2            transmitting a reply signal including the updated nodeID and the EUI of the

3    controller node.


1    9.    The method of claim 7 further comprising:

2            discarding the received message if the received controller node EUI does not

3    match a stored controller node EUI.


1    10.    The method of claim 7 wherein the buses are similar to a version of the IEEE

2    standard 1394 bus.

1  11.    A method of maintaining communications in a bus bridge interconnect

2  comprising a plurality of buses linked by at least one bus bridge, the method

3  comprising:

4          receiving a signal from a talker node wherein the signal includes a node

5  identification address ("nodeID") and an EUI of a controller node of the listener node;

6          searching a listener node memory for the controller node EUI;

7          comparing, if the received controller node EUI matches a stored controller

8  node EUI, the received controller nodeID to a stored controller nodeID

9  corresponding to the stored controller node EUI; and

10          replacing the stored controller nodeID with the received controller nodeID if

11  the received controller nodeID does not match the stored controller nodeID.


1  12.    The method of claim 11 further comprising:

2          transmitting a reply signal including the updated nodeID and the EUI of the

3  controller node.


1  13.    The method of claim 11 further comprising:

2          discarding the received message if the received controller node EUI does not

3  match a stored controller node EUI.


1  14.    The method of claim 11 wherein the buses are similar to a version of the IEEE

2  standard 1394 bus.


1  15.    An apparatus comprising:

2          means for receiving a change indication signal from a talker node;

3          means for performing an address resolution protocol in response to the

4  change indication signal to find an updated a node identification address("nodeID")

5    for a listener node using a extended unique identifier ("EUI") of the listener node;

6    and

7         means for storing the updated listener nodeID with the listener node EUI.


1    16.    An apparatus comprising:

2         means for receiving a signal from a talker node at a controller node;

3         means for transmitting the signal from the controller node to a listener node

4    with an updated controller nodeID as the source nodeID and the controller node EUI

5    as the source EUI;

6         means for searching the listener node memory for the controller node EUI;

7         means for comparing, if the received controller node EUI matches a stored

8    controller node EUI, the received controller nodeID to a stored controller nodeID

9    associated with the stored controller node EUI; and

10        means for replacing the stored controller nodeID with the received controller

11   nodeID in the listener node memory if the received controller nodeID does not match

12   the stored controller nodeID.


1    17.    An apparatus comprising:

2         means for receiving a signal from a talker node wherein the signal includes a

3    node identification address ("nodeID") and an EUI of a controller node of the listener

4    node;

5         means for searching a listener node memory for the controller node EUI;

6         means for comparing, if the received controller node EUI matches a stored

7    controller node EUI, the received controller nodeID to a stored controller nodeID

8    corresponding to the stored controller node EUI; and

9         means for replacing the stored controller nodeID with the received controller

10   nodeID if the received controller nodeID does not match the stored controller

11   nodeID.

1    18.    A machine-readable medium having stored thereon instructions, which when

2    executed by a set of processors, cause said set of processors to perform the following:

3          receive a change indication signal from a talker node;

4          perform an address resolution protocol in response to the change indication

5    signal to find an updated a node identification address("nodeID") for a listener node

6    using a extended unique identifier ("EUI") of the listener node; and

7          store the updated listener nodeID with the listener node EUI.

8

9    19.    A machine-readable medium having stored thereon instructions, which when

10    executed by a set of processors, cause said set of processors to perform the following:

11          receive a signal from a talker node at a controller node;

12          transmit the signal from the controller node to a listener node with an updated

13    controller nodeID as the source nodeID and the controller node EUI as the source

14    EUI;

15          search the listener node memory for the controller node EUI;

16          compare, if the received controller node EUI matches a stored controller node

17    EUI, the received controller nodeID to a stored controller nodeID associated with the

18    stored controller node EUI; and

19          replace the stored controller nodeID with the received controller nodeID in the

20    listener node memory if the received controller nodeID does not match the stored

21    controller nodeID.

22

23    20.    A machine-readable medium having stored thereon instructions, which when

24    executed by a set of processors, cause said set of processors to perform the following:

25          receive a signal from a talker node wherein the signal includes a node

26    identification address ("nodeID") and an EUI of a controller node of the listener node;

27          search a listener node memory for the controller node EUI;

28        compare, if the received controller node EUI matches a stored controller node

29    EUI, the received controller nodeID to a stored controller nodeID corresponding to

30    the stored controller node EUI; and

31        replace the stored controller nodeID with the received controller nodeID if the

32    received controller nodeID does not match the stored controller nodeID.